WALBRO WYK CARBURETOR

COLOR CODE

- Fuel
- Crankcase Pulse
- Air

WYK OPERATING FUNCTIONS

1. Throttle Lever Ass'y: Controls throttle barrel operation from idle to wide open throttle position.
2. Inner Idle Needle: Controls fuel delivery at idle, part-throttle and wide open throttle positions.
3. Nozzle: Delivers fuel from metering system to engine at idle, part-throttle and wide open throttle.
4. Inlet Needle: Regulates amount of fuel delivered to metering chamber.
5. Metering Lever Spring: Transmits force to metering lever.
6. Metering Diaph. Ass'y: Low pressure in crankcase allows diaph. to activate metering lever.
8. Air Purge Ass'y: Purges air from carburetor and replaces with fuel for starting.
9. Overflow tube: Discharges fuel from purge area to tank.
11. Prime button: Delivers fuel to nozzle at start position.
12. Throttle Barrel: Regulates amount of air allowed to mix with fuel at idle, part-throttle and wide open throttle positions.

Page 2
WYK AT START POSITION (PURGE & PRIME)

**WYK AT START POSITION (PURGE)**

By depressing the purge bulb, air is forced through the umbrella styled check valve. This air passes through the pump body and out the overflow tube.

When the bulb is released, the umbrella check valve is drawn closed. An orifice bypassing the check valve allows fuel to be drawn up from the fuel tank, through the carburetor fuel pump, metering chamber and into the primer bulb. Once the primer bulb is at least 1/4 filled with fuel, the engine is ready for the starter button to be depressed for 3 seconds and the engine started.

**STARTER BUTTON (PRIME)**

Some WYK carburetors are equipped with a starter button. This button when depressed for 3-4 seconds forces fuel from the fuel pump of the carburetor into the nozzle for easier starting.

**WYK STARTING PROCEDURE**

Depress purge bulb 4-5 times until fuel drains out of overflow tube.

Depress starter button for 3-4 seconds to allow fuel to flow into nozzle.

Hold throttle open part-throttle or wide open and pull starter rope until engine starts.
WYK AT IDLE POSITION

The barrel styled WYK carburetor adjustment at the idle position is similar to all Walbro barrel carburetors. A boss on the throttle bracket allows the throttle lever to create a ramp effect going from idle to wide open throttle. Idle adjustment is done with the inner idle needle located below the plastic plug. Note that when all idle adjustments are complete the plastic plug must be reinstalled.

WYK IDLE ADJUSTMENT PROCEDURE

1. Remove the plastic plug located directly above the inner idle needle.
2. Using a 2.5mm wide flathead screwdriver, turn out the inner idle needle until threads disengage.
3. Turn inner idle needle clockwise 10-12 turns in very slowly. The idle RPM will increase (lean) until the peak lean idle RPM is obtained. Once this is obtained, turn inner idle needle counterclockwise (rich) until optimum idle is obtained. Please note that carburetors and engine applications will vary therefore the needle settings may vary also.
4. Adjust the idle speed screw to the correct idle RPM.
5. Check idle, progression and wide open throttle.

NOTE: Some WYK carburetors are manufactured with a high speed needle. See instructions.
WYK AT WIDE OPEN THROTTLE POSITION

When the WYK carburetor is at the wide open throttle position, the throttle lever will be at the highest side of the ramp. This will allow the idle needle to be pulled away from the nozzle outlet and allow enough fuel to be fed to the engine at W.O.T. The barrel will be fully open allowing as much air as permitted to enter from the choke side and flow into the engine.

WYK CARBURETORS WITH A HIGH SPEED ADJUSTMENT NEEDLE

Some WYK carburetors have a high speed needle to adjust the fuel flow delivered to the nozzle. High speed needle adjustment should be set between 1 1/4 turns open at the engine manufacturer's specified RPM.

High speed needle adjustment should be done after idle needle setting procedure is complete. Pre-set the high speed to 1 1/4 turns open to insure an initial rich setting.

Page 5
METERING LEVER SETTING PROCEDURE

The correct metering lever setting is important in order to obtain the correct fuel delivery at idle, part-throttle and wide open throttle positions. The procedure is as follows:

1. Place a screwdriver on the head of the inlet needle. Do not apply pressure, just keep the needle stable. (See Fig. 1.)

2. To obtain a leaner setting, apply enough pressure on the opposite end of the lever with a second screwdriver (See Fig. 1.)

3. To obtain a richer setting, place your second screwdriver beneath the lever and bend the lever up to contact the metering diaphragm earlier.

4. Place the appropriate side of the metering lever gage and slide it over the lever.

5. The gage should pass over the lever while making slight contact as you pass it over.

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